Qualification handbook



**Introduction**

Cert-ain Certification Ltd. is a certification body accredited by the relevant regulatory authorities to offer a range of qualifications for operatives working in the building services engineering sector.

The Cert-ain Certification Ltd. qualifications are designed to be user-friendly for both the assessment centres delivering them and the candidates undertaking them. Our aim is to keep things as simple as possible whilst at the same time, maintaining the highest possible quality standards.

Our qualifications are designed to encourage learning and achievement, providing operatives with the appropriate knowledge and skills to help them progress in their chosen career.

**Water Regulations qualification**

The aim of this handbook is to provide the necessary information for those operatives wishing to undertake the Water Regulations qualification.

The handbook also aims to provide assessment centres with details of the requirements for delivering the qualifications.

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**Water Regulations**

**Summary**

The Cert-ain Certification Ltd. Water Regulations qualification has been accepted by the Water Industry Approved Plumbers Scheme (“WIAPS”) as meeting the minimum requirements of competency necessary for entry into the plumbing sector of their scheme.

All succesful candidates will be issued with a Cert-ain Certification Ltd. Water Regulations certificate of competence and a photo ID card.

**Eligibility**

There are no formal entry requirements to attend this course however a relevant plumbing qualification such as an NVQ Level 2 or equivalent work experience, is recommended.

Individuals with any disabilities that may affect their ability to successfully complete the qualifications should inform the assessment centre on application. Assessment centres shall consider any reasonable requests for any aids or equipment that are designed to alleviate any disability providing that the required assessment standard is not compromised.

**Training**

Assessment centres deliver a training programme focussing on the contents of the Water Supply (Water Fittings) Regulations 1999 and the Water Regulations Guide. The training programme is designed to help operatives prepare for the assessment.

**Reference material**

 The reference material used for the training / examination:

* Water Supply (Water Fittings) Regulations 1999
* Water Regulations Guide

**Course criteria**

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| 1. **Understand the requirements of Part 1 of the Water Supply (Water Fittings) Regulations**
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| **1.1 Understand when the Regulations came into force** |
| **1.2 Understand the terminology used within each of the Regulations** |
| **1.3 Understand the application of the Regulations/Byelaws relating to:** |
| where the Regulations apply  | where the Regulations do not apply |
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| **2. Understand the requirements of Part 2 of the Water Supply (Water Fittings) Regulations** |
| **2.1 Understand the restriction on installation of water fittings in relation to:** |
| waste | misuse |
| undue consumption | contamination |
| erroneous measurement |
| **2.2 Understand the requirements for water fittings relating to:** |
| compliance with Regulation 4 | quality and standard of water fittings |
| how to access the regulators’ specification and standards | suitability of water fittings for use in contaminated ground |
| access to directories of approved fittings e.g. WRAS and KIWA | suitability of water fittings |
| **2.3 Understand the term `Workmanlike Manner`** |
| **2.4 Understand the notification requirements for any person proposing to install a water fitting, including:** |
| who should serve notice | to whom notice should be served |
| what should be included in the notification | consent from the water undertaker |
| conditions of consent (consent still means compliance with the Regulations) | examples of notifiable work including from the table |

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| 1. **Understand the requirements of Part 2 of the Water Supply (Water Fittings) Regulations**
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| **3.1 Understand the penalties for contravening the Regulations** |
| **3.2 Understand how an owner can prove defence in the case of a prosecution** |
| **3.3 Understand who can undertake inspections** |
| **3.4 Understand who enforces the Regulations/Byelaws** |
| **3.5 Understand how relaxations may be achieved** |
| **3.6 Understand how approval by the Regulator or Water Undertaker may be achieved** |
| **3.7 Understand how disputes may be resolved, including the limitations and applications of arbitration** |
| **3.8 Understand when the previous regulations/bylaws were revoked** |
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| **4. Understand the fluid categories as set out in Schedule 1 of the Regulations** |
| **4.1 Understand the five fluid categories** |
| **4.2 Understand the seriousness of each fluid category and examples of each** |

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| **5. Understand the terminology used in Schedule 2 of the Regulations**  |
| **5.1 Understand the meaning of the following definitions:** |
| backflow | pressure relief valve |
| cistern | primary circuit |
| combined feed and expansion cistern | secondary circuit |
| combined temperature and pressure relief valve | secondary system |
| contamination | servicing valve |
| distributing pipe | stop valve |
| expansion cistern | storage cistern |
| expansion valve | temperature relief valve |
| flushing cistern | terminal fitting |
| overflow pipe | vent pipe |
| **5.2 Understand the meaning of the following definitions used in the guidance clauses:** |
| waste | water fitting |
| misuse | service pipe |
| undue consumption | supply pipe |
| erroneous measurement | communication pipe |
| wholesome water | distribution pipe |
| **6. Understand the requirements for materials and substances in contact with wholesome water** |
| **6.1 Understand the use of materials and substances in contact with water** |
| **6.2 Understand where this requirement does not apply** |
| **6.3 Understand the requirements for non-metallic materials used on water systems** |
| **6.4 Understand materials that are banned for use in water systems, including:** |
| lead | hemp |
| gaskin | coal tar |
| bitumen |
| **7. Understand the requirements for water fittings**  |
| **7.1 Understand the fitness for purpose of water fittings relating to:** |
| British Standards |
| immunity and protection from galvanic action, including the jointing of different materials |
| **7.2 In relation to installed water fittings Understand the requirements for the following:** |
| water tightness | the supporting of pipework |
| prevention of ingress from contaminants | the fixings for water fittings |
| prevention from damage by freezing etc | the fixings for water fittings |
| prevention from deterioration by permeation | location of water fittings |
| **7.3 Understand the terms ‘concealed fitting’ and ‘dezincification resistant material’** |
| permissible pump output capacity  | recommended siting of a pump |
| **7.4 Understand the following installation requirements for pipes entering a building:** |
| depth of pipework | insulation requirements |
| protection of pipework |
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| **7.5 Understand the installation requirements for underground pipework in relation to:** |
| pipes laid underground  | pipes supplying water to a building below street level  |
| pipes laid over an underground obstruction  | pipes beneath a stream |
| pipes under an underground obstruction |  |
| **7.6 Understand that the requirements for backfill and identification of underground pipework may differ, and that local requirements should be checked** |

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| **8. Know and understand the design and installation requirements for a water supply system**  |
| **8.1 Understand the methods of preventing the contamination of water fittings and the water contained within them when passing through contaminated environments** |
| **8.2 Understand the maximum permissible temperature for cold water, taking into consideration the different legislation in England, Wales, Scotland and Northern Ireland, and recommendations made in other legislation** |
| **8.3 Understand the installation requirements relating to stop valves for the following:** |
| individual properties | locations within premises supplied with water |
| blocks of flats supplied from a common supply pipe | blocks of flats with separate supply pipes to each flat |
| **8.4 Understand the installation requirements for the provision of draining taps in relation to:** |
| **8.5 Understand that the requirements for pressure testing, flushing and disinfection may vary and to check local requirements** |
| **9. Understand the requirements for the prevention of cross connection to unwholesome water** |
| **9.1 Understand the meaning of unwholesome water in relation to rainwater, recycled water and any fluid not supplied by a water undertaker, which may also include bore holes and spring supplies** |
| **9.2 Understand the requirements for identifying an unwholesome water system so that it is readily distinguishable from a wholesome system in relation to:** |
| pipework laid below ground  | labelling for pipes and terminal fittings |
| colour coding for pipes and fittings in accordance with BS1710:2014 |
| **9.3 Identify the correct arrangement for connecting a wholesome water supply to a re-use system** |
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| **10. Understand the requirements for backflow prevention** |
| **10.1 Understand the requirements for the arrangements or devices to prevent the cross connection to unwholesome water** |
| **10.2 Understand the term Backflow and the two causes - back siphonage and back pressure** |
| **10.3 Understand the terms ‘upstream’ and ‘downstream’** |
| **10.4 Identify devices or arrangements used to prevent backflow, back pressure and back siphonage and their suitability** |
| **10.5 Understand the terms ‘whole site’ and ‘zone’ protection** |
| **10.6 Process involved in assessing suitability and procedure around RPZ valves (also have knowledge of the RPZ AIM)** |

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| **11. Understand the requirements for cold water services** |
| **11.1. Understand the requirements for inlet valves to cisterns** |
| **11.2 Understand the requirement for servicing valves on inlets to cisterns** |
| **11.3 Understand the requirement for servicing valves on outlets from cisterns** |
| **11.4 Understand the requirements for storage cisterns including:** |
| overflow pipes | covers |
| warning pipes | thermal insulation |
| **11.5 Understand the installation requirements to minimise contamination of stored water** |

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| **12. Know the requirements for hot water services** |
| **12.1 Describe the installation requirements and methods of connection for water fittings in relation to:**

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| directly heated unvented hot water systems | indirectly heated unvented hot water systems |
| methods of accommodating expanded water in a hot water system | temperature of hot water at terminal fittings and surfaces of hot water pipes |
| maximum temperature within a hot water system | hot water distribution temperatures |
| independent water heaters |
| **12.2 State the requirements for discharge pipes from safety devices** |
| **12.3 State the requirements for discharge pipes from expansion valves** |
| **12.4 State the requirements for vent pipes from a primary circuit** |
| **12.5 State the requirements for vent pipes from a secondary hot water storage system** |
| **12.6 State the requirements for vented systems requiring dedicated storage cisterns or mechanical safety devices** |
| **12.7 State the methods of filling closed circuits** |

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| **13. Know the installation requirements for WC’s, flushing devices and urinals approved for use** |
| **13.1 Identify the installation methods and requirements for the operation of WC pans in regard to:** |
| requirements for AUK1 air gaps | dual flush cistern capacities |
| single flush cisterns | operating instructions for dual flush cisterns |
| dual flush cisterns | pressure flushing valves |
| single flush siphonic outlet | cistern water line marks |
| dual flush siphonic outlet | requirements for warning pipes |
| drop and flap valves | internal overflows |
| **13.2 Explain methods for flushing urinals in relation to:** |
| manually operated cisterns | pressure flushing valves |
| automatically operated cisterns |
| **13.3 Describe methods for filling a urinal cistern in relation to:** |
| manual infill | time switch |
| electronic sensor | frequency of flushing |
| pressure pad |  |

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| **13.4 State the requirements for urinal cistern filling rates for:** |
| a single urinal bowl | a urinal stall or slab serving two or more urinals |
| **13.5 State the requirements for the renewal of a WC cistern installed before 1st July 1999** |
| **14. Know the types of bath, sink, showers and taps and their location and installation requirements** |
| **14.1 State the requirements for drinking water points in premises** |
| **14.2 State the requirements for drinking water supplies in relation to water:** |
| supplied from a supply pipe | supplied from a pumped supply pipe  |
| that has been softened and used for drinking purposes | supplied from a storage cistern |
| **14.3 State the requirements for waste outlets from appliances** |

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| **15. Know the consumption limitations for washing machines, dishwashers and other appliances** |
| **15.1 State the upper limits of water consumption for domestic:** |
| horizontal axis washing machines | dish washers |
| washer – driers |

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| **16. Know the requirements for water supplied for outside use** |
| **16.1 Understand the backflow prevention arrangements for standpipes** |
| **16.2 Understand the backflow prevention arrangements for animal drinking troughs** |
| **16.3 State the installation requirements for ponds, fountains and pools in relation to:** |
| impervious liners and water tightness | temporary connections to ponds, pools and fountains |

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| **17. Understand the requirements for hygienic working practices** |
| **17.1 Understand that water is a food product and the need for hygienic working practices** |
| **17.2 Understand the reasons for cleaning and disinfecting tools** |
| **17.3 Understand the reasons for hygienic storage of pipe and fittings** |
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| **18. Understand other legislation surrounding the installation of supply pipes** |
| **18.1 Understand the requirement to obtain a Section 50 Licence under the New Road and Street Works Act (NRSWA) 1991 if excavating adopted highways** |
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| **19. Understand how to become an Approved Contractor** |
| **19.1 The learner should understand that completing this course alone does not make them approved, and should understand how to apply to become an Approved Contractor** |
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**Assessment process**

Candidates will be required to successfully complete a multi-choice examination that will take approximately 1 hour to complete. The pass-rate is 100%, candidates are allowed up to 3 attempts.

1. The pass rate for the examination is 100%
2. If the candidate does not achieve 100% on the first attempt, they will be allowed a second attempt at the questions that they got wrong on the first attempt
3. If the candidate does not achieve 100% on the second attempt, providing they have achieved over 80%, they will be orally questioned by the assessor to establish their competence
4. Candidates not achieving 80% after the second attempt or 100% after oral questioning will be deemed to be unsuccessful
5. Unsuccessful candidates will be required to retake the assessment in its entirety

**Assessors**

Assessors shall be approved by Cert-ain Certification Ltd. They must be occupationally competent and hold a current Water Regulations qualification.

Assessors must also hold one of the following assessor qualifications:

* D32 or A1
* Level 3 certificate ‘assessing vocationally related achievement’ or suitable equivalent

**Internal verifiers**

Internal verifiers shall be approved by Cert-ain Certification Ltd. They must be occupationally competent and hold or be working towards one of the following internal verifier qualifications:

* D34 or V1
* Level 4 award ‘internal quality assurance of assessment processes and practice’ or suitable equivalent

**Centre approval**

All centres delivering the Water Regulations qualification are subject to approval and monitoring to ensure that they have the appropriate personnel and facilities in place to deliver a fair and impartial training and assessment process. The Cert-ain Certification Ltd. external verifier shall carry out quality assurance of the training, assessment and internal verification process that includes sampling of:

* training and assessment facilities
* candidate records
* assessment decisions

**External Verifiers**

External verifiers shall hold or be working towards one of the following qualifications:

* D35 or V2
* Level 4 certificate ‘external quality assurance of assessment processes and practices’ or suitable equivalent

**Contact details**

If you would like any further information relating to the Cert-ain Certification Ltd. qualifications, please contact:

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